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### REPORT OF THE COMPTROLLER GENERAL OF THE UNITED STATES



Bureau Of Reclamation's
Procedures And Practices For
Computing Authorized
Cost Ceilings And Project Cost
Estimates Need Improvement

Department of the Interior

The Bureau can increase the congressionally authorized cost ceiling on construction projects to recognize inflation. GAO estimated that this inflation increase amounted to \$1.4 billion for 1974.

GAO noted that the Bureau's procedures and practices need to be improved and recommends changes so that the Congress can rely on the information provided in budget justifications.

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### COMPTROLLER GENERAL OF THE UNITED STATES WASHINGTON, D.C. 20348

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The Honorable William S. Moorhead Chairman, Conservation, Energy, and Natural Resources Subcommittee Committee on Government Operations House of Representatives

Dear Mr. Chairman:

Pursuant to the December 12, 1974, request from the former Chairman of your Subcommittee and our subsequent discussions with your office, we are reporting on the burge of Reclamation's procedures and practices for increasing the authorized cost ceiling on selected projects. We have also evaluated the actions taken by the burged in respense to recommendations in our earlier report entitled "Congress Needs here Information on Plans for Constructing the Garrison Diversion Unit in North Dakota" (B-164570, dated devember 25, 1974).

We discussed our findings and conclusions with Eurezu of Reclamation officials, but as your office requested, we did not obtain written comments from the Bureau or from the Department of the Interior.

we invite your attention to the fact that this report contains recommendations to the Secretary of the Interior which are set forth on pages 11, 12, 18, 20, and 29. As you know, section 236 of the Legislative Peorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions he has taken on our recommendations to the House and Senate Committees on Government Operations not later than 60 days after the date of the report and to the house and Senate Committees on Appropriations with the agency's first reduct for appropriations made more than 60 days after the date of the report. We

B-164570

understand that you will distribute copies of the report to the Secretary and the four committees for the purpose of setting in motion the requirements of section 236.

Sincerely yours,

Deputy

Comptrol-Ter General of the United States

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	A DEI DEUT AMT ONG	
	ABBREVIATIONS	
CRSP	Colorado River Storage Project	
GAO	General Accounting Office	^

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COMPTROLLER GLNERAL'S REPORT TO THE SUBCOMMITTEE ON CONSERVATION, ENERGY, AND NATURAL RESOURCES COMMITTEE ON GOVERNMENT OPERATIONS HOUSE OF REPRESENTATIVES BUREAU OF RECLAMATICA'S PROCEDURES AND PRACTICES FOR COMPUTING AUTHORIZED COST CEILINGS AND PROJECT COST ESTIMATES NEED IMPROVEMENT Department of the Interior

#### DIGEST

Legislation for a Bureau of Reclamation construction project usually establishes the maximum funds authorized to be appropriated for the project without additional justification to and authorization by the Congress.

However, such legislation usually contains a provision allowing the Bureau to increase the established authorized cost for ordinary fluctuations in construction costs so that the original congressional authorization remains unchanged by inflation.

GAO estimates that this provision resulted in a \$1.4 billion increase in congressional authorization for 1974.

If at any time, however, the estimated total federal obligations, incurred or to be incurred, to complete a project exceeds the authorized cost ceiling as adjusted for ordinary rluctuations in costs, the Bureau should consider (1) restructuring the project to reduce project costs without causing a substantial change in project benefits or (2) going back to the Congress to seek legislation permitting a higher authorized cost ceiling.

GAO reviewed Bureau procedures and practices for updating the authorized cost ceilings and cost estimates as applied to three projects:

- -- Garrison Diversion Unit, North Dakota;
- -- Fryingpan-Arkansas project, Colorado; and
- -- the Bonneville Unit of the Central Utah project, a participating project in the Colorado River Storage Project.

GAC also found several instances where it believes that the Bureau misapplied its procedures in preparing the estimates of the authorized cost ceiling and total rederal obligations for the fiscal year 1976 budget submissions. (See op. 13 to 10.)

The procedural weaknesses in computing authorized cost ceilings, coupled with the misapplications on the fiscal year 1976 budget submissions, would—if adjusted by the Bureau—show that the estimated total Federal obligations on two of the three projects reviewed by GAC would exceed the authorized cost ceilings, as follows.

	Computed by the Eureau	Computed by GAO	
	(millions)		
Colorado River Storage Project	\$196.4 under ceiling	\$26.9 over ceiling	
Garrison Diver- sion Unit	<pre>\$.4 under ceiling</pre>	340.0 over ceiling	

(See pp. 16 and 26.)

GAO recommends that the Secretary of the Interior require the Eureau to update the cost ceiling and cost estimates for the Colorado River Storage Project and the Garrison Liversion Unit, considering, where necessary, alternatives to restructure the projects to reduce project costs without causing a substantial change in project benefits or to do back to the Congress for legislation permitting nigher authorized cost ceilings. (See op. 18 and 26.) GAO also recommends

Inis report also contains CAG's evaluation of the actions taken in response to recommendations in its November 25, 1974, report on the Garrison Diversion Unit and additional recommendations where CAO believes that its prior recommendations have not been fully implemented. (See pp. 2d and 29.)

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#### CHAPTER 1

#### IN1 RODUCTION

As the former Chairman, Conservation and Natural Resources Subcommittee (currently the Conservation, Energy, and Natural Resources Subcommittee), House Committee on Government Operations, requested on December 12, 1974, and as later arranged with the subcommittee, we reviewed Bureau of Reclamation procedures and practices for increasing the authorized cost ceiling on selected projects and evaluated the actions taken by the Bureau in response to recommendations in our earlier report to the former Chairman entitled "Congress Needs More Information on Plans for Constructing the Garrison Diversion Unit in North Dakota" (B-164570, November 25, 1974). We made this review primarily to find out whether applying Bureau procedures and practices resulted in the computation of an authorized cost ceiling which could be relied on by the Congress.

we reviewed Bureau procedures and practices for updating the authorized cost ceiling and project cost estimate as applied to the Garrison Diversion Unit in North Dakota, and with the concurrence of the Subcommittee, the Gryingpan-Arkansas project in Colorado, and the Bonneville Unit of the Central Utah project in Utah, a participating project in the Colorado River Storage Project. (See the appendix for general information on each project.) Our review was conducted at Bureau project and regional offices in Bismarck, North Dakota; Denver, Colorado; and Salt Lako City, Utah. We also discussed our findings with Bureau officials in Washington, D.C.

#### AUTHORIZED COST CEILINGS

The legislation authorizing construction of a Bureau project usually contains a provision for project cost similar to the following.

"There is hereby authorized to be appropriated for construction of the (Name) Project the sum of \$xx,xxx,UUU (January 19xx prices), plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuation in construction costs as indicated by engineering cost indexes applicable to the type of construction involved herein.

This provision is designed to establish the maximum funds which are authorized for a project without additional

justification to and authorization by the Congress. In effect, it is designed to establish a maximum authorized cost ceiling in the absence of additional legislative authority. By adjusting this authorized cost ceiling for engineering cost indexes, cost increases resulting from inflation are included in the authorization without the need for reconsideration by the Congress, because such indexes consider cost increases caused by inflation.

For example, if the original authorization was \$100,000,000 in January 1974 prices, the authorized cost ceiling could automatically increase annually with inflation. A 10 percent increase in construction prices during 1974 would change the January 1975 ceiling to \$110,000,000. A 5 percent rate of inflation during 1975 would further increase the January 1976 ceiling to \$115,500,000. This example indicates the indexing process in its simplest form and does not consider any of the more complicated adjustments that have to be made during the indexing process, such as an adjustment for expenditures of appropriated funds that are no longer affected by inflation. These more complicated adjustments are discussed later in this report.

The initial authorization of a Bureau project is based on weighing the costs and benefits and on a finding by the Congress that the project is worth the expected expense. Indexing the authorized cost ceiling presumes that the initial congressional decision to authorize a project would not be disturbed in the future by inflation. If at any time, however, the estimated total Federal obligations, incurred and to be incurred, to complete a project exceeds the authorized indexed cost ceiling, then this would indicate that alternatives should be considered by the Bureau to restructure the project so as to reduce project costs without causing a substantial change in project benefits or to go back to the Congress to seek new legislation permitting a higher authorized cost ceiling.

The authorizing legislation and related legislative history does not set forth the procedures or methodology that should be used in indexing the authorized cost ceiling and, thus, the Bureau has considerable legislative latitude in designing the process. Further, Bureau projects may require years to complete and, thus, the increase may be considerable in congressional authorization resulting from inflationary price increases. For example, the Bureau reported that its construction costs rose about 21 percent between January 1974 and January 1975. Although this increase was abnormal, large increases occurred in prior years (1972—6 percent; 1973—8 percent). We applied the 21 percent increase to the remaining estimated expenditures on currently authorized

projects and estimated that the indexing procedures permitted a \$1.4 billion increase in congressional authorization for 1974. The magnitude of this increase shows the importance of the indexing process.

On the three projects we reviewed, the Bureau computed the collowing increases in the authorized cost ceilings.

Project	Year authorized	Author Original	ized cost	ceiling Increase
		60 To 00 00 00 00 100 00 101	(millions)	
Garrison Fryingpan-Arkansas	1965 1962	\$ 207.0 170.0	\$ 419.2 a432.0	\$212.2 262.0
Colorado River Storage Project	1956	b <sub>1,370.0</sub>	c <sub>1,673.2</sub>	303.2

<sup>a</sup>Fiscal year 1976 ceiling includes an additional authorization of \$90 million for a powerplant and municipal and industrial water.

bly56 act--\$760 million and 1972 act--\$610 million.

 $^{
m C}$ lnuexing was not authorized until the 1972 act.

#### PROJECT COST ESTIMATES

For the authorized cost ceiling to act most effectively as a congressional and agency management control over construction projects, it is important that the periodic estimates of total project costs be made timely and represent the Bureau's best current estimate of total Federal obligations to be incurred against the authorized cost ceiling. If the cost estimates are not timely or adequate, the recognition of needed changes may be delayed to the extent that congressional and agency management alternatives would be greatly limited.

In addition to requiring the indexing of a project's authorized cost ceiling, sureau procedures require that the estimate of actual cost (obligations) to be incurred be continually updated using current cost indexes and include all known design changes and additional work requirements. Continuous updating is necessary to reduce the possibility of using an incomplete or inadequate cost estimate to compare with the authorized cost ceiling.

The project cost estimate is compared to the authorized cost ceiling to determine the need to redesign project components, to reduce feature size to lower total cost, or to return to the Congress for additional authorization authority. For this comparison to serve its purpose, the authorized cost ceiling and the cost estimate should include comparable items.

In our November 1974 report to the Subcommittee, we said that the estimated total Federal obligations for the Garrison project (\$362.8 million) included in the Bureau's fiscal year 1975 appropriation justification was probably understated by about \$72.6 million and that the Bureau's latest estimate of Garrison's authorized cost ceiling, as adjusted for ordinary fluctuations in construction cost (\$394.2 million), could in exceeded by \$41.2 million. We recommended several changes to the Secretary of the Interior concerning the updating of estimated total Federal obligations for the Garrison project.

In reply to that report, on February 28 and March 28, 1975, the Deputy Assistant Secretaries of the Interior for Water and Land and for Management advised the Chairman that Garrison's estimated total Federal obligations included in the Burcau's fiscal year 1976 appropriation justification was \$418.8 million and that this estimate was made in accordance with the recommendations in our November 1974 report. The Deputy Assistant Secretaries also advised the Chairman that the \$418.8 million in total estimated Federal obligations was within the Bureau's \$419.2 million fiscal year 1976 estimate of the authorized cost ceiling.

#### CHAPTER 2

## BUREAU PROCEDURES FOR COMPUTING AUTHORIZED COST CEILINGS NEED IMPROVEMENT

Procedures used by the Bureau allowed costs not subject to inflation to unnecessarily increase the authorized cost ceiling. For example, the fiscal year 1976 authorized cost ceilings on the projects we reviewed were increased about \$25.7 million as a result of the Bureau's (1) indexing expended funds no longer affected by inflation (some of these funds had been expended before project authorization) and (2) using actual land costs in the updated authorized cost ceiling rather than indexing the land costs included in the original authorized cost ceiling.

Also, the cost indexing procedures used by the Bureau did not specify whether action should be taken to reduce the authorized cost ceiling when features authorized for construction were provided, or were expected to be provided, by a non-Federal entity. For instance, \$10.4 million was not included in the Bureau's fiscal year 1976 estimate of total federal obligations for the Fryingpan-Arkansas project because certain project features were assumed to be provided by a non-Federal entity. However, the \$10.4 million for these project features was included in the Bureau's fiscal year 1976 authorized cost ceiling for this project.

#### BUREAU PROCEDURES ALLOWED COSTS NOT AFFECTED BY INFLATION TO INCREASE THE AUTHORIZED COST CLILING

The Bureau's cost indexing procedures were outlined in a June 21, 1973, letter from the Commissioner of Reclamation to the Bureau's regional directors. Beginning with the fiscal year 1975 budget cycle, all changes in the cost ceiling were required to be made in accordance with the criteria set forth in the letter.

The letter stated that the original authorized cost ceilings included several cost elements which are affected differently by engineering cost increases. For example, price increases for land, powerplants, canal turnouts, or project overhead may not all change at the same rate because inflation increases the cost of each element differently. Therefore, each element must be considered separately in the indexing process. The Bureau procedures divided the major estimating factors into three components: construction costs, noncontract costs (overhead), and land and land rights.

Instructions for indexing each component allowed costs affected by inflation to increase the authorized each ceiling.

#### Construction costs

mates will continue to be indexed until the last major contract on a feature is completed." This procedure allowed a project office to update the authorized cost ceiling annually for expenditures incurred years before the updating; i.e., expended funds remained in the indexing process even though they were no longer affected by inflation.

For example, on McClusky Canal (Garrison Diversion Unit) \$23.9 million, or 50 percent of the estimated total construction cost, was expended at the time the Bureau computed the project's authorized cost ceiling for fiscal year 1976. However, all of the original construction cost estimate on McClusky Canal was indexed annually resulting in an authorized cost ceiling of \$34.5 million for the fiscal year 1976 estimate. Although expended funds are not influenced by future inflation, the expended funds were indexed on the McClusky Canal and caused the ceiling to increase annually.

To determine the effect of past expenditures on the authorized cost ceiling, we made a computation which excluded all expended funds from the indexing process the year after they were incurred. (See p. 7 for an explanation of why we chose this method.) As a result of eliminating such expended funds, our computation showed that the McClusky Canal portion of the Garrison Diversion Unit's authorized cost ceiling should be decreased \$2.6 million. A similar GAO adjustment for the only other Garrison project feature under construction, Snake Creek Pumping Plant, showed that the authorized cost ceiling should be decreased another \$3.6 million.

when we eliminated expended funds from the indexing process on the Fryingpan-Arkansas project, our computation showed that the Bureau's estimate of the fiscal year 1976 authorized cost ceiling should be decreased about \$17.2 million. Expended funds were also indexed by the Bureau on the Colorado River Storage Project and its participating projects; the indexing issue is discussed on page 14 and 15.

The Eureau's procedures provided that the indexing process will continue until the last major contract on a feature is completed. Therefore, the indexing process does not necessarily stop with the completion of a contract. Large project features may require several contracts to

complete. For example, a contract on Reach 3C of McClusky Canal was dated June 17, 1970, and was accepted as essentially complete on August 23, 1973. Bureau procedures allow cost in the project estimate for this completed contract to be indexed until 1978, when the last major contract on McClusky Canal is scheduled for completion.

The Bureau's indexing of the total original cost estimate continued on other features for which several contracts were completed. For example, on Pueblo Dam and Reservoir (Fryingpan-Arkansas) several contracts were completed, such as a

- --railroad relocation, completed in January 1969;
- --highway relocation, completed in January 1970; and
- --construction contract, completed in December 1971.

None of the completed contracts were removed from the indexing process for the Bureau's computation of the fiscal year 1976 authorized cost ceiling.

Bureau officials told us that they allow the original construction cost estimate to be indexed until completion of the last major contract on a feature, because adjusting the authorized cost ceiling computation for expended funds could become a lengthy and involved process.

We believe however, that several administratively feasible alternative procedures are available to prevent indexing expended funds or costs for completed contracts from unduly increasing the authorized cost ceiling computation. The method used in our computations adjusted the Bureau's authorized cost ceiling computations for expended funds on an annual basis. For example, if the Bureau spent \$1,000,000 in 1 fiscal year, we would index that amount that year, but we would eliminate it from future authorized cost ceiling computations. Also, for an item separately identified in the original cost estimate for which the actual expenditures exceeded the original cost estimate as indexed, or when the work on that item was completed, we eliminated that item from further indexing in our computation.

Other alternatives might include

--limiting the indexing process to incomplete contracts or

--eliminating expended funds on a monthly or quarterly basis from the indexing process.

Under each of these alternatives, indexing an item should also stop when the original estimate for that item as indexed is exceeded by the actual expenditure or when the work on that item is completed. We believe that this is required to help prevent the indexing process from increasing the authorized cost ceiling for factors not directly related to inflation.

#### Noncontract costs

Bureau procedures allowed two alternatives for updating the authorized cost ceiling for noncontract costs:

- --Apply the Federal classified pay raises to the original estimate. For example, if Federal employee compensation increased by 5 percent, the noncontract authorized cost ceiling would increase 5 percent.
- --Apply a fixed percentage to the field cost. For example, if noncontract costs were 20 percent of construction cost in the original estimate, the construction cost ceiling would be indexed and the noncontract cost ceiling would become 20 percent of the indexed construction cost ceiling.

Meither procedure provides specific instructions for treating noncontract costs incurred before project authorization by the Congress or for treating expended funds in the indexing process.

We identified examples of noncontract costs being indexed years after they were incurred on each project. The most notable example was the indexing of preauthorization investigation costs, a form of noncontract cost incurred by the Bureau pefore project authorization by the Congress. Although the costs were incurred under a separate appropriation before the projects were authorized and were not included by the Bureau in its estimate of total Federal obligations incurred and to be incurred to complete a project, the Bureau procedure, in effect, resulted in indexing these costs annually and including them in the authorized cost ceiling.

For example, Garrison's preauthorization costs of \$2.4 million were expended before 1962, but all of this sum remained in the indexing system. Although inflation could not affect these preauthorization costs because they

had been spent, the Bureau indexed such costs and, therefore, the fiscal year 1976 authorized cost ceiling for Garrison was overstated by \$2.2 million.

#### Land costs

Aureau procedures allowed the use of a U.S. Department of Agriculture land index to update the authorized cost ceiling before the purchase of land. Bureau procedures precluded using the index to update the ceiling after land was purchased.

The procedures stated that once land is acquired, the purchase price automatically becomes the land ceiling. Consequently, the original authorization ceiling amount for land becomes irrelevant in the ceiling computation. In our opinion, this procedure allows the ceiling computation to include amounts which compensate for deficiencies or changes in the original estimates—such as underestimates in the number of acres of land required to complete a project.

For example, Bureau procedures allowed increases in the authorized cost ceiling for acreage increases on the Fryingpan-Arkansas project. The original land cost estimate and acreage estimate for that project's Turquoise Lake and Sugar Loaf Dam were:

Acres 1,200

Original estimate \$40,320 (including contingencies)
Price per acre \$34 (including contingencies)

When the land was purchased, the following resulted:

Acres 2,278
Price \$290,737
Price per acre \$128

Because actual land costs were included in the authorized cost ceiling, the cost of the additional 1,078 acres (2,278 minus 1,200) or \$138,000 (1,078 x \$128), became part of the authorized cost ceiling as if inflation caused the increased cost.

We do not question the authority of the Bureau to make limited changes in design that are necessary and consistent with the project purpose. We believe, however, that when design changes increase project costs as a result of purchasing larger acreages or more expensive parcels of land than was originally anticipated, the indexing practices

followed by the Bureau should not allow such increased costs to be included in the authorized cost ceiling.

## BUREAU PROCEDURES DID NOT SPECIFY TREATMENT OF NON-FEDERAL EXPENDITURES

Bureau procedures did not specify whether action should be taken to reduce the authorized cost ceiling when features authorized for construction are provided, or expected to be provided, by a non-Federal entity. We found one instance where the cost of such features expected to be provided by a non-Federal entity were excluded by the Bureau from estimated total Federal obligations but were not excluded from the authorized cost ceiling. Thus, the authorized cost ceiling included an amount for a feature which the Bureau did not anticipate would actually be expended by the Government. The value of comparing the estimated authorized cost ceiling with the estimated project obligations is reduced when the estimated cost of a project feature is included in one estimate but not in the other estimate.

Public Law 93-493, October 27, 1974, increased the authorized ceiling on the Fryingpan-Arkansas project by \$262.0 million. Senate Report 93-1208 stated that \$90.0 million of the increase was to expand power and municipal and industrial water facilities. In justifying this increase, the Interior officials told the Committee on Interior and Insular Affairs that the estimated cost for a second power unit at the Mt. Elbert Powerplant was \$28.0 million. Concurrently, however, the Bureau's estimated total Federal obligations prepared for the fiscal year 1976 budget submission indicated that the estimated cost for this second power unit was \$17.6 million, or \$10.4 million less than the Congress authorized pursuant to the Interior's request.

Bureau officials told us that the \$10.4 million difference represented transmission line and switchyard costs that were excluded from the Bureau's fiscal year 1976 estimate of total federal obligations because these project features were assumed to be provided by a private electrical cooperative which in turn would obtain reimbursement for its costs directly from its customers. According to Bureau officials, the \$10.4 million was included in the authorization request and the fiscal year 1976 authorized cost ceiling for the Fryingpan-Arkansas project because the contract with the private electricial cooperative had not been signed. However, Bureau officials also stated that even after the contract with the private electrical cooperative is signed, the \$10.4 million will remain in the authorized cost ceiling because the Congress did not specify reducing

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the authorization if a non-Federal entity incurs the cost on this project feature.

On the basis of congressional intent expressed in comparable situations, we believe that the Bureau should exclude non-Federal expenditures from the authorized cost ceiling at the same time these costs are excluded from estimated total Federal obligations. For example, Senate Report 93-1208 stated that the additional authorization requirement for the Fryingpan-Arkansas project included \$62.0 million to expand municipal and industrial water supply aqueducts. The possibility existed that local municipalities would provide these facilities. In House Report 93-1206, the Committee on Interior and Insular Affairs stated that:

"\*\*\*If it subsequently appears that local interests should finance these lines, \$62,000,000 of the appropriations authorized by Title XII would not be required. The Committee on Interior and Insular Affairs believes that this authority should be granted but hereby expresses the view that the authorization should be expressly reserved for constructing the Fountain Valley and Arkansas Valley Aqueducts and should not be utilized for other features of the project.\*\*\*"

Public Law 86-406, June 3, 1900, authorizing the San Luis Unit of the Central Valley project, California, is another example of the Congress' desire to limit the items included in the authorized cost ceiling to Federal expenditures. This law reads:

"\*\*\*Said base sum of \$290.430,000 shall, however, be diminished to the extent that the State makes funds or lands or interests in land available to the Secretary pursuant to sections 2 or 3 of this Act which decrease the costs which would be incurred if the works authorized in section 1 of this Act\*\*\*were constructed solely as a Federal project\*\*\*."

## RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

we recommend that the Secretary of the Interior direct the Bureau of Reclamation to implement revised procedures for computing authorized cost ceilings to include provisions which would:

- --Adjust the construction and noncontract portions of the authorized cost ceiling computation for expended funds which are no longer affected by inflation, using an administratively feasible method such as one of those discussed on pages 7 and 8 of this report.
- --Eliminate the indexing of preauthorization costs from the authorized cost ceiling.
- --Prohibit substituting actual land costs for land costs based on the original estimate as appropriately indexed.
- --Exclude non-Federal expenditures from the authorized cost ceiling computation at the same time the applicable costs are excluded from total Federal obligations.

#### CHAPTER 3

#### MISAPPLICATION OF BUREAU PROCEDURES FOR INDEXING AUTHORIZATION AND COST ESTIMATES

In several instances we believe the Bureau misapplied its procedures in preparing the fiscal year 1976 estimate of the authorized cost ceiling, resulting in an overstatement of \$20.6 million and an understatement of \$9.0 million in authorized cost ceilings for the three projects reviewed. As discussed in chapter 2, we are recommending changes in some of the misapplied procedures. We further adjusted the amount of the understatement and overstatement to recognize the recommended changes. These adjustments resulted in an estimated net overstatement of \$163.4 million in the authorized cost ceilings, in addition to the \$25.7 million overstatement previously discussed in chapter 2.

In another instance we believe the bureau misapplied its procedures on the Bonneville Unit for estimating total Federal obligations, resulting in a \$63.7 million understatement of estimated project costs. This understatement of estimated project costs, coupled with an overstatement we believe the Bureau made on the estimated authorized cost ceiling, would—if adjusted by the Bureau—show that estimated total projects costs would exceed the estimated authorized cost ceiling for the Colorado River Storage Project and its participating projects, including the Bonne—ville Unit. If such adjustment were made, the adjustment results would require the Bureau to consider alternatives to restructure the project to reduce project costs without causing a substantial change in project benefits or to return to the Congress for additional ceiling authority.

we believe that the instances identifi of misapplied ceiling and cost estimating procedures indicates a need for more intensive management review of the Bureau's application of these procedures. We observed that very little, if any, effort was being made by the Bureau to insure compliance with its indexing and cost estimating procedures. The Department of the Interior's internal auditors also said they had not reviewed compliance with these procedures.

MISAPPLICATIONS OF BURLAU PROCLECKES ON THE COLOPAGE RIVER STORAGE PROJECT AND ITS PARTICIPATING PROJECTS

The Colorado River Storage Project (CRSP) and its participating projects, including the Bonneville Unit, were originally authorized on April 11, 1956, under Public

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Law 405, 84th Congress, 2d Session, 1956 (70 Stat. 105). The original authorizing legislation established an overall cost ceiling of \$760 million for the entire CRSP and its participating projects. The original authorizing act did not include a provision allowing increases in the cost ceiling for inflation.

On February 25, 1972, the acting Secretary of the Interior stated that by the end of fiscal year 1972, only \$5.1 million of the original authorization of \$760.0 million remained and that an additional \$610.0 million would be required to complete CRSP and its participating projects. On August 10, 1972, the Congress increased the authorization by \$610.0 million (uplic Law 92-370, 66 Stat. 525) and added a provision allowing increases in the cost ceiling for intlation.

Regional officials of the Bureau computed for fiscal year 1976 the estimated authorized cost ceiling for CASP and its perticipating projects by adding the two authorizations (\$760 million plus \$610 million equals \$1,370 million) and multiplying this sum by a composite index. The resulting authorized cost ceiling was shown by the Bureau as being \$1,673.2 million and exceeded the Bureau's fiscal year 1976 estimate of total Federal obligations for CASP and its participating projects (\$1,476.8 million) by \$196.4 million. We believe, however, that the Bureau misapplied three of its procedures in making these estimates.

## Honcompliance with Bureau procedures for indexing construction costs

As previously discussed on page 6, Bureau procedures in effect at the time of our review stated that construction cost "estimates will continue to be indexed until the last major contract on a feature is completed." Contrary to this procedure, regional officials indexed construction costs on completed features.

for instance, a project feature in the CRSP called Flaming Gorge was completed at a cost of \$65 million before the passage of the 1972 act. Nevertheless, the Bureau continued to index the cost of this completed project feature in its estimated authorized cost ceiling computation for fiscal year 1976 and, as a result, increased the authorization by \$14.3 million more than would have been justified if the cost of this completed feature had not been included in the indexing process.

As discussed in chapter 2, we believe that not only should the cost of completed project features be excluded trom the indexing process—as required by Bureau procedures—

but that expended funds should be excluded from the process even if the project feature is not completed, because such expended funds are no longer subject to inflation. Therefore, we did not attempt to determine the total impact on the fiscal year 1976 authorized cost ceiling for CPSP and its participating projects using the misapplied Bureau procedure. Instead, we adjusted the CRSP authorized cost ceiling computation to exclude all expended funds from the indexing process on the basis of the alternative procedure we previously chose (see page 7). We estimated accordingly that the fiscal year 1976 authorized cost ceiling for CRSP and its participating projects was overstated by about \$168.6 million.

#### Incorrect use of a composite index

Bureau procedures divide project authorization into three components: land and land rights, noncontract costs, and construction costs. Construction costs are further divided into type of construction, such as earth dams, powerplants, canals, and pumping plants. Bureau procedures indicate that these divisions are necessary to determine the ceiling because different inflation factors apply. The procedures state that "in the updating process, separate applicable cost indexes must be applied to the estimate components and types of construction."

Instead of using the separate cost indexes, regional officials used a composite index to compute the fiscal year 1976 authorized cost ceiling for CKSP and its participating projects. We estimate that using this composite index instead of the separate cost indexes resulted in an uncerstatement of \$9.0 million in the authorized cost ceiling. This \$9.0 million understatement is included in the nec understatement discussed on page 13, because we agree with the Bureau procedure requiring the use of separate cost indexes.

#### Noncurrent estimate of project cost

Bureau procedures state that the cost estimate, "supports the Control Schedules (PF-2 and PF-2b) used in annual justification for the appropriation of funds for construction work in the current year, and for the purpose of supporting the request for funds for work planned to be undertaken in cubsequent years. These estimates shall be maintained and kept current by the appropriate operating office\*\*\*."

Contrary to this procedure, however, most of the Bureau's tiscal year 1976 Bonneville Unit estimate of total Federal obligations was indexed to October 1971 prices. When we

updated this cost estimate to January 1974 prices to make it consistent with the Bureau's computation of the authorized cost ceiling for CREV and its participating projects, our resulting computation showed the cost estimate to be understated by \$63.7 million.

#### Impact of revised ceiling and cost estimates

On the basis of the instances identified above, we believe that the bureau's computations of the fiscal year 1976 authorized cost ceiling and estimated total Federal obligations for CRSP and its participating projects should be revised, as follows.

,	Fincal Year 1976 Computation Authorized Estimated total		
		Federal ebligations	Difference
99 <b>30</b> 1	Mit gale 10% that fore plat and other seas all they	(millions)	
Bureau computation	\$1,673.2	\$1,476.8	ə196.4
Less adjustment for expended funds	160.0		
Plus adjustment for separate cost indexes	٧. ٥		
rlus adjustment to January 1974 prices on the Bonneville			
unit		63.7	
	<b>ச்சு நேஜாசி மின</b> ப	to the self-risk in the seed or	<b>,,44 th 1.1 th</b>
GAO adjusted totals	\$1,513.0	\$1,540.5	\$-26.9

Regional officials of the Bureau stated that another project feature, Leland Bench, was being considered for inclusion in the fiscal year 1977 plane for constructing the bonneville Unit at a cost of \$45 Million. These officials said the \$190.4 Million excess of authorized ceiling over estimated costs computed by the Bureau for fiscal year 1976 could accommodate the \$45 Million increase in project costs without returning to the Congress for additional ceiling authority. However, these officials stated that a revision in the fiscal year 1976 ceiling and cost estimates as we suggested would probably require the Bureau to return to

the Congress for additional ceiling authority on CRSP and its participating projects regardless of whether or not Loland bench was added to the Bonneville Unit.

MISAPPLICATIONS OF BUREAU PROCEDURES ON THE GARRISON DIVERSION UNIT AND FRYINGPAN-ARKANSAS PROJECTS

We identified instances of misapplied Bureau indexing procedures on the Garrison and Fryingpan-Arkansas projects in two other Bureau regions. Although the dollar effects of these instances of misapplied procedures were not as significant as those identified on the CRSP and its participating projects, they show that the problem of noncompliance with Bureau indexing procedures is not isolated to any one particular Bureau project or regional office.

Noncompliance with the Bureau procedures for indexing land costs on the Garrison Diversion Unit

As previously discussed on page 9, Bureau procedures in effect at the time of our review indicated that land indexing must stop once the land is purchased. Although we take exception to the Bureau's requirement for using actual land costs in the updated authorized cost ceiling rather than indexing the land costs included in the original authorized cost ceiling, we agree that land indexing should stop once the land is purchased.

Contrary to this procedure, the Bureau's project office did not use actual land costs—a deviation with which we agree—and indexed the entire original land estimate in computing the fiscal year 1976 authorized cost ceiling on the Garrison Diversion Unit, even though land had already been purchased on four project reatures. We estimated that the project office's continuous indexing of purchased land, however, resulted in an inappropriate \$3.8 million increase in the fincal year 1976 authorized cost ceiling on the Garrison Diversion Unit. This \$3.8 million overstatement is included in the net overstatement discussed on page 13, because we agree with that portion of the Eureau's procedure that indicates that indexing should stop once land is purchased.

Noncompliance with Bureau procedures

Tor indexing construction costs on
the Fryingpan-Arkansas project

As discussed on page 6, Bureau procedures in effect at the time of our review state that construction cost

"estimates will continue to be indexed until the last major contract on a feature is completed." However, Bureau project office officials for Fryingpan-Arkansas said they interpreted this procedure to allow indexing construction costs until the features are released to Operation and Maintenance personnel. Because this did not occur for many months after contract completion, stopping the indexing process was delayed.

For instance, the original cost estimate for two features on the Fryingpan-Arkansas project continued to be indexed after the last major contract on the project features were accepted as complete—Reudi Dam for 1 year and Sugar Loaf Dam for 1-1/2 years. We estimated that the project office's interpretation of the Eureau procedure resulted in an inappropriate \$2.5 million increase in the fiscal year 1976 authorized cost ceiling for the Fryingpan-Arkansas project. We did not include this \$2.5 million overstatement in the net overstatement discussed on page 13, because this amount had already been included in our computation of the effect of eliminating expended funds from the indexing process discussed on page 6.

## RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

We recommend that the Secretary of the Interior direct the Bureau of Reclamation to:

- --Develop and implement a periodic independent internal review process which would verify compliance with Bureau indexing and cost estimating procedures and which would also identify procedural weaknesses to be corrected.
- --Update the ceiling and cost estimates for CRSP and its participating projects, as suggested on page 16, considering, where necessary, alternatives to restructure the project to reduce project costs without causing a substantial change in project benefits or to go back to the Congress for new legislation permitting a higher authorized cost ceiling.

#### CHAPTER 4

# EVALUATION OF ACTIONS TAKEN IN RESPONSE TO RECOMMENDATIONS IN GAO'S NOVEMBER 25, 1974, REPORT ON THE GARRISON DIVERSION UNIT

In our report entitled "Congress Needs More Information on Plans for Constructing the Garrison Diversion Unit in North Dakota," we recommended that the Secretary of the Interior require the Bureau of Reclamation to update total estimated cost of the Garrison Diversion Unit to include

- --estimated costs representative of costs actually being incurred in the construction area,
- --allowances for the costs of items not generally included until final designs are drawn,
- --estimated costs for additional requirements established by general legislation and new construction standards, and
- --estimated costs for changes in the authorized project plan.

We also recommended that the Secretary

- --advine the congressional oversight and appropriation committees promptly if total estimated costs exceed the Garrison project cost ceiling,
- --include the authorized Garrison project cost ceiling in future budget justifications, and
- --advise the congressional oversight and appropriation committees about the estimated Garrinon cost increases which may be required to settle the ongoing water quality dispute with Canada.

We believe the Bureau's estimate of total Federal obligations for the Garrison Diversion Unit inleaded in its fiscal year 1976 appropriation justification adequately took into consideration several of the recommendations in our prior report. We believe, however, that additional actions are needed to fully implement certain of our prior recommendations.

## ADEQUACY OF ACTIONS TAKEN TO UPDATE TOTAL ESTIMATED COST FOR THE GARRISON PROJECT

In reply to our November 25, 1974, report, on February 28 and March 28, 1975, the Deputy Assistant Secretaries of the Interior for Water and Land and for Management advised the Chairman, Conservation, Energy, and Natural Resources Subcommittee that Garrison's estimated total Federal obligations included in the Bureau's fiscal year 1976 appropriation justification was \$418.8 million. The Deputy Assistant Secretary for Water and Land stated that the first three GAO recommendations for updating Garrison's total estimated cost had been complied with when the Bureau estimate for fiscal year 1976 was updated (1) using North Dakota construction and land indexes, revised quantities, and unit prices where available and actual contract costs where applicable, (2) including an allowance of 7 percent for the cost of items not generally included until final designs were drawn, and (3) including estimated costs for additional requirements established by general legislation and new construction standards. Regarding our fourth recommendation for updating Garrison's total estimated cost, the Deputy Assistant Secretary for Water and Land stated that no changes that affect project functions or goals had been made in the overall authorized project plan; changes had been made only in irrigiation service methods (for example, sprinkler instead of gravity irrigation systems) and in features required to deliver water.

For those recommendations where we believe reasonable and adequate actions have been taken, we found that the Bureau's use of North Dakota construction and land indexes and the allowance of 7 percent for the cost of items not generally included in cost estimates until final designs are drawn substantially corrected the basic causes for two of the recommendations in our prior report.

Whereas we previously found that the Bureau was using North Dakota prices and the allowance in computing the estimated cost of only two of seven irrigation areas to be served by the project, for the fiscal year 1976 cost estimate the Bureau used North Dakota prices and the allowance for six of the seven irrigation areas. Whereas we previously found that land cost estimates were not based on recent purchases, for the fiscal year 1976 cost estimate the Bureau used a

The cost estimate for the seventh irrigation area was computed on the basis of North Dakota prices and the allowances. However, as discussed on page 22 to 24, the resulting computation was temporarily understated by about \$15.8 million.

North Dakota land index based on actual cost experience on recent purchases.

A third recommendation in our prior report also was generally implemented when the bureau computed the fiscal year 1976 cost estimate on the basis of estimates resulting from changes to the authorized project plan for different irrigation service methods and features required to deliver water.

We also believe that the Bureau took appropriate actions to update its estimate of total Federal obligations for the Garrison Diversion Unit's fiscal year 1976 appropriation justification, except for what Eureau officials said is a "temporary understatement" of about \$15.8 million in the estimated cost of one of the seven irrigation areas to be served by the Garrison project and except for what, in our opinior, is a \$12.4 million understatement in the estimated cost for additional requirements established by general legislation enacted after project authorization. These two matters are discussed in the following sections.

## Additional actions needed to update cost estimates for new legislative requirements

For the recommendation where we believe that additional actions are needed by the bureau to update Garrison project costs, we tound that the Bureau did not consistently include estimated costs for additional requirements established by general legislation enacted after project authorization in its fiscal year 1976 cost estimates. The Bureau advised us that it added about \$17 million in its computation of the authorized cost ceiling for fiscal year 1976 on the basis of the following legislation enacted after the original estimate of costs for the Garrison project had been made and the project authorized by the Congress.

Legislation	Amount	
	(millions)	
Public Law 91-190, Environmental Policy Act Public Law 91-646, Relocation Assistance Public Law 93-251, Roads and Bridges (above replacement in kind)	\$ 9.8 2.3 2.4	
Public Law 92-313, Public Building Amendment	2.5	
Total	\$17.0	

## BEST DOCUMENT AVAILABLE

According to the Bureau officials who made the cost estimates for fiscal year 1976, only \$4.6 of the \$17.0 million in additional costs was included in the estimate of total Federal obligations. These Bureau officials said the \$4.6 million included in the cost estimate was the amount that already had been incurred for these new requirements. They stated that the difference (\$12.4 million) between the \$4.6 million that had been incurred and the total \$17.0 million that had been added to the authorized cost ceiling represented the cost of new requirements estimated to be incurred in the future. They added that the \$12.4 million was not added to estimated total Federal obligations because it was believed that the allowances for contingencies and for the costs of items not generally included until final designs were drawn would be sufficient to cover these costs when they were incurred.

To test the reasonableness of these Bureau officials' beliefs, we analyzed the cost experience on Acclusky Canal for these allowances. Our analysis showed that the allowances were not sufficient to cover contingencies, the costs of items not generally included until final designs were drawn, and the additional requirements established by general legislation enacted after project authorization.

For example, the projected contingencies in the original cost estimate for McClusky Canal was 12.6 percent, whereas actual contingencies on McClusky Canal contracts averaged 17.7 percent. The projected allowance for items not generally included in cost estimates until final designs are drawn was estimated by the Bureau at 7 percent, whereas the actual experience for these items on McClusky Canal contracts was 13.8 percent.

In both cases the estimated allowances were exceeded by the actual cost experience. Consequently, we believe that to adequately show the estimated total cost for the Garrison project, the Bureau needs to further update its estimate to include the \$12.4 million for the estimated new requirements to be incurred in the future.

## Inadequately supported temporary understatement of project costs

According to the Eureau officials who made the cost estimates for fiscal year 1976, the cost of the Souris irrigation area was temporarily understated by \$15.8 million to reduce the estimate of total Federal obligations for the Garrison project below the authorized cost ceiling. They said that this temporary understatement was necessary because the estimated cost on another feature, Acclusky Canal,

temporarily exceeded its portion of the authorized cost ceiling by about \$17.2 million.

Bureau officials said that the McClusky Canal cost estimate for fiscal year 1976 accurately indicated the final cost of this project feature because it was based on the actual contracts awarded, including estimated inflation for contract periods that extended beyond the year in which the cost estimate was made. They said that the McClusky Canal portion of the authorized cost ceiling computation reflects inflation only up to the time the computation is made. With the authorized cost ceiling increasing annually until the last major contract on a project feature is completed, the Bureau officials said that both the ceiling and the cont estimate would be about equal when the last major contract on this project feature was completed because both estimates would include inflation for an equal time period. They said that when the amounts were equal, the \$15.8 million would be reinstated in the Souris irrigation area portion of the cost estimate.

We agree with the Bureau's position that an adjustment is required when project feature cost is based on contracts that include estimated inflation for contract periods that extend beyond the year in which the cost estimate is made. We believe, however, that the Bureau's arbitrary reduction of \$15.8 million in estimated costs for the Souris irrigation area does not represent a reasonable basis for estimating the amount of intlation included in contracts for the Garrison project.

As previously discussed on pages 6 to 8, indexing the authorized cost ceiling until the last major contract on a project feature is completed allows costs not affected by inflation to inappropriately increase the authorized cost ceiling. On McClusky Canal we estimated that the authorized cost ceiling for fiscal year 1976 was overstated by \$2.6 million because expended funds were not eliminated from the indexing process. Moreover, each year the amount of the overstatement will increase because more funds will be spent and, under Bureau procedures, the entire original estimate on this project feature will continue to be indexed until 1978, when the last major contract is scheduled for completion.

Consequently, we believe that the Bureau's statement that the ceiling and cost estimates will be about equal when the last major contract on the McClusky Canal is completed is not adequately supported when expended funds are removed from the indexing process. A more reasonable basis for adjusting the estimated project feature cost based on contracts

that include estimated inflation for contract periods extending beyond the year the cost estimate is made would be to discount the contract cost to remove the estimated inflation for future years. However, the Bureau will have to obtain sufficient information to estimate the inflation rate included in such contracts.

ADEQUACY OF ACTIONS TAKEN TO NOTIFY THE CONGRESS WHEN TOTAL ESTIMATED COST EXCLEDS THE AUTHORIZED COST CEILING

In their replies of February 28 and March 26, 1975, the Deputy Assistant Secretaries of the Interior for Water and Land and for Management advised the Chairman that the Bureau's \$416.0 million estimate of total Federal obligations for Carrison's fiscal year 1976 appropriation justification was within the Eureau's \$419.2 million estimate of the project's authorized cost ceiling for fiscal year 1976. The Deputy Assistant Secretary for Management further stated that until it is determined that the project cost will exceed the authorized cost ceiling, the Department does not anticipate requesting the Congress to reconsider the authorized cost ceiling.

The Deputy Assistant Secretary for Water and Land also stated that

"\*\*\*inasmuch as actual expenditures on the Garrison Diversion Unit (\$77 million to date) are only 18 percent of the appropriation ceiling, it does not seem necessary or advisable to request an increase in the ceiling until expenditures represent a substantial part of the ceiling and additional ceiling would obviously be required to complete the project.\*\*\*"

He went on to say that

"\*\*\*It may be necessary, as historically practiced by Reclamation in its estimating procedures, to adjust future items periodically to keep the estimate in balance with the computed ceiling on the premise that future changes can be made, through redesign and other economics, to enable construction of a project within the total cost ceiling. If this is not done, it will be necessary to seek additional ceiling every time the cost estimate temporarily exceeds the total cost ceiling, thereby causing considerable contusion and the ducstionable creation of an expensive administrative effort.\*\*\*

Project completion status is one factor that should be considered by the Congress and management in determining whether or not an increase in the authorized cost ceiling is warranted. However, for the cost estimating process to be effective as a congressional and management control over construction projects, it is important that estimates of the authorized cost ceiling and total project costs represent the best information available to the Bureau at the time the estimates are prepared. Because the total project cost estimate is compared to the authorized cost ceiling to determine the need to redesign project components, to reduce feature size to lower total cost, or to return to the Congress for additional authorization authority, using inauequately supported estimates or estimates based on premises that may or may not materialize could cause the recognition of needed changes to be delayed to the extent that congressional and agency management alternatives would be significantly limited.

If Bureau estimates of the authorized cost ceiling and total project costs used in its fiscal year 1976 appropriation justification were adjusted for those items questioned in this report, the adjustment results would show that Garrison's authorized cost ceiling would be exceeded by \$40.0 million, as shown on page 26.

Marie Marie ME

	Piscal Year 1976 Computation		
	Authorized cost ceiling	Estimated total Federal obligations	Difference
		(millions)	
Bureau computation	n \$419.2	\$418.8	\$ .4
Less adjustment for expended funds included in the authorized cost ceiling (see p. 6)	or 6.2		
Less adjustment frindexing preauthorization costs (see pp. 8 and 4)		·	
Less adjustment for continuous indexist of purchased land (see p. 1/)			·
Plus adjustment f new legislative requirements to b incurred in the f (see pp. 21 and 2	e uture	12.4	
Plus adjustment for inadequately supported "temporary understatement" (see pp. 22 to 24		<u>a15.8</u>	****
GAO adjusted totals	\$407.0	\$ 447.0 	\$-40.0

aAll or part of this amount could be offset by the use of an alternative method for estimating the amount of inflation included in contracts for the Garrison project as discussed on pages 23 and 24.

## BEST DOCUMENT AVAILABLE

# ADEQUACY OF ACTIONS TAKEN TO INCLUDE THE AMOUNT OF THE AUTHORIZED COST CEILING IN THE BUDGET JUSTIFICATION

In his February 28, 1975, reply to the Chairman, the Deputy Assistant Secretary for Water and Land stated that the statement explaining that the current estimated total cost for Garrison was within the authorized cost ceiling conveyed the Department's best current analysis of the cost ceiling situation and would be included in the fiscal year 1976 appropriation justification for the project. The documents supporting the fiscal year 1976 appropriation justification for Garrison contained this statement; however, the documents did not show the amount of the authorized cost ceiling as we previously had recommended.

We believe the Secretary of the Interior should tell the congressional oversight and appropriation committees of the relationship between the authorized cost ceiling and current estimated total Federal obligations for Garrison as well as for other Bureau projects controlled by the cost indexing and estimating process. We believe that this information can best be conveyed to the Congress by showing in the documents supporting the agency's budget the estimated amounts of the authorized cost ceiling and of the total Federal obligations.

ADEQUACY OF ACTIONS TAKEN TO ADVISE THE CONGRESS OF ESTIMATED COST INCREASES WHICH MAY HE REQUIRED TO SETTLE THE WATER QUALITY DISPUTE WITH CANADA

In his February 28, 1975, reply to the Chairman, the Deputy Assistant Secretary for Water and Land stated that cost estimates of alternative Garrison project plans under consideration within the Department which might resolve the Canadian return flow issue were very preliminary. He stated that until a joint examination was concluded of certain aspects of, or adjustments to the project, resulting from a January 16, 1975, meeting with officials of the Canadian Government, it would be inappropriate to address a statement of resolution or timetable for solving the return flow problem. He said that if an alternative plan for Jevelopment is needed, the Chairman can be assured that the engineering, economic, and environmental aspects of the potential alternatives will be fully planned and explained to all concerned.

In view of the Deputy Assistant Secretary's response, we believe that the Bureau should at least have footnoted its estimate of total Federal obligations for Garrison's fiscal year 1976 budget submission to fully show that this

estimate did not include contingent costs that might be required to settle the water quality dispute with Canada. A January 14, 1975, preliminary cost estimate by the Bureau indicated that as much as an additional \$51 million might be required to resolve this dispute. According to Bureau officials, updated estimates of the costs of the alternatives are due to be completed by June 1, 1976, and final resolution of the dispute is not expected before October 1976.

## RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

We recommend that the Secretary of the Interior direct the Bureau of Reclamation to update its estimates of the authorized cost ceiling and total Federal obligations for the Garrison project by:

- --Including the estimated costs to be incurred in the future for additional requirements established by general legislation enacted after project authorization in the estimate of total Federal obligations.
- --Excluding inadequately supported temporary understatements from the estimate of total Federal obligations and replacing them with an adjustment based on discounting contract costs to remove the estimated future intlation for contract periods extending beyond the year the cost estimate is made.
- --Excluding from the authorized cost ceiling estimate those items, such as indexing expended funds and preauthorization costs, which are not subject to intlation.
- --Footnoting the estimate of total federal obligations to fully disclose the contingent costs that might be required to settle the water quality dispute with Canada.

we also recommend that the Secretary:

--Advise the congressional oversight and appropriations committees promptly if total estimated cost for the Garrison project cannot be reduced within its authorized cost ceiling without causing a substantial change in project benefits.

--Include the estimated authorized cost ceiling amount in future budget justifications for Garrison as well as for other Bureau projects controlled by the cost indexing and estimating process.

APPENDIX I APPENDIX I

#### GENERAL INFORMATION ON PROJECTS REVIEWED

#### GARRISON DIVERSION UNIT

The Garrison Diversion Unit is a multipurpose water resources development project being constructed in North Dakota. The project will provide a full supply of water for irrigating 250,000 acres, 40,000 acre feet of water for municipal and industrial use in 14 towns and cities, and water for developing 36 major and several minor fish and wildlife areas and 9 major recreation acres. Other project information is as follows.

- --Authorization--Public Law 89-108 (79 Stat. 433), August 5, 1965.
- -- Estimated completion date--1990.
- --Project completion as of June 30, 1975 -- 20.8 percent (project official's estimate).
- -- Regional Office--Billings, Montana.

#### FRYINGPAN-ARKANSAS PROJECT

The Fryingpan-Arkansas project is a multipurpose water resources development project being constructed in Colorado. A project official said Fryingpan-Arkansas will provide a supplemental water supply to irrigate 280,600 acres, 57,500 acre feet of water for municipal and industrial use, and water for generating hydroelectric power from units with installed capacity of 211,000 kilowatts. Benefits of fish and wildlife, recreation, and flood control will also be provided. Other project information is as follows.

- --Authorization--Public Law 87-590 (76 Stat. 369), August 16, 1962.
- --Estimated completion date--1983 (project official's estimate).
- --Project completion as of June 30, 1975 --44 percent (project official's estimate).
- -- Regional Office-- Denver, Colorado.

APPENDIX I

#### BONNEVILLE UNIT

The Bonneville Unit is one of six units comprising the Central Utah Project, a participating project in the Colorado River Storage Project. Bonneville is a multipurpose water resources development project being constructed in central Utah which will provide a full water supply for irrigation of 29,370 acres of new land, a supplemental water supply to 213,170 acres of partially irrigated lands, 99,000 acre feet of water for municipal and industrial use, and 133,500 kilowatts of installed capacity for generating hydroelectric power. Benefits of fish and wildlife, recreation, and flood control will also be provided. Other project information is as follows.

- --Authorization--Public Law 485, 84th Congress, 2d Session, 1956 (70 Stat. 105), April 11, 1956.
- --Estimated completion date--1991 (project official's estimate).
- --Project completion as of June 30, 1975 -- 10 percent (project official's estimate).
- -- Regional Office -- Salt Lake City, Utah